

S101DH1/S101DH2 S201DH1/S201DH2

16-Pin DIP Type SSR for Low Power Control

■ Features

1. Compact
(16-pin dual-in-line package type)
2. High output current
(RMS ON-state current I_T : 1.5A_{rms})
3. Built-in zero-cross circuit
(S101DH2 / S201DH2)
4. Recognised by UL, file No. E94758
5. Approved by CSA, No. LR63705

■ Applications

1. Air conditioners
2. Microwave ovens
3. Home appliances

■ Model Line-ups

	For 100V lines	For 200V lines
No built-in zero-cross circuit	S101DH1	S201DH1
Built-in zero-cross circuit	S101DH2	S201DH2

■ Absolute Maximum Ratings

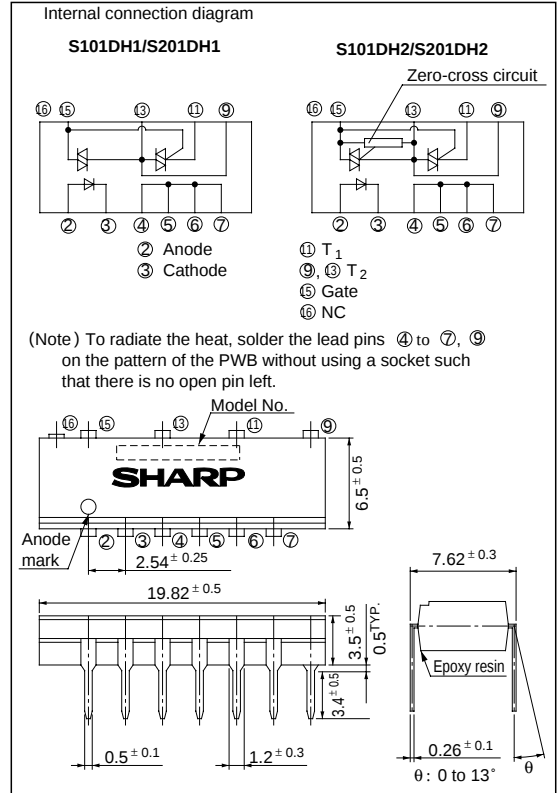
(Ta = 25°C)

Parameter	Symbol	Rating		Unit
		S101DH1/ S101DH2	S201DH1/ S201DH2	
Input	Forward current	50		mA
	Reverse current	6		V
Output	RMS ON-state current	1.5		A _{rms}
	Peak one cycle surge current	15 (50Hz, sine wave)		A
	Repetitive peak OFF-state voltage	400	600	V
*1 Isolation voltage		4,000		V _{rms}
Operating temperature		- 25 to + 85		°C
Storage temperature		- 40 to + 125		°C
Soldering temperature		260 (For 10 seconds)		°C

*1 AC for 1 minute, 40 to 60% RH, f = 60Hz

■ Outline Dimensions

(Unit : mm)



■ Electrical Characteristics

(Ta = 25°C)

Parameter			Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage		V _F	I _F = 20mA	-	1.2	1.4	V
	Reverse current		I _R	V _R = 3V	-	-	10	μ A
Output	Repetitive peak OFF-state current		I _{DRM}	V _{DRM} = Rated	-	-	100	μ A
	ON-state voltage		V _T	I _T = 1.5A	-	-	1.7	V
	Holding current		I _H	V _D = 6V	-	-	25	mA
	Critical rate of rise of OFF-state voltage	S101DH1/S101DH2	dV/dt	V _{DRM} = 1/ √2 • Rated	200	-	-	V/μ s
		S201DH1/S201DH2			100	-	-	
	Zero-cross voltage	S101DH2/S201DH2	V _{OX}	Resistance load, I _F = 15mA	-	-	35	V
Transfer characte ristics	Minimum trigger current		I _{FT}	V _D = 6V, R _L = 100Ω	-	-	10	mA
	Isolation resistance		R _{ISO}	DC500V, 40 to 60% RH	5 x 10 ¹⁰	10 ¹¹	-	Ω
	Turn-on time		t _{on}	V _D = 6V, R _L = 100Ω I _F = 20mA	-	-	100	μ s

Fig. 1 RMS ON-state Current vs. Ambient Temperature

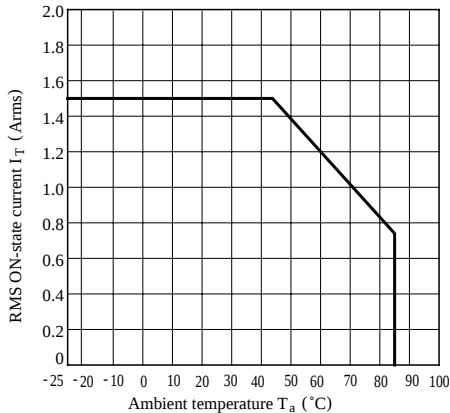


Fig. 2 Forward Current vs. Ambient Temperature

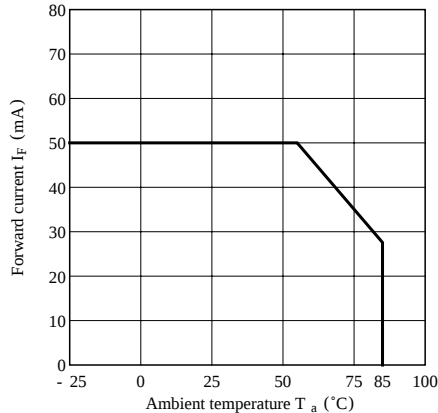


Fig. 3 Forward Current vs. Forward Voltage

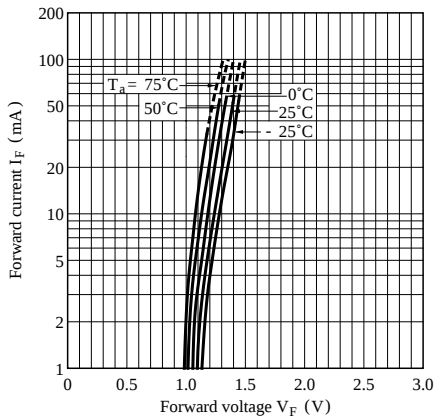


Fig. 4 Minimum Trigger Current vs. Ambient Temperature (Typical Value) (S101DH1)

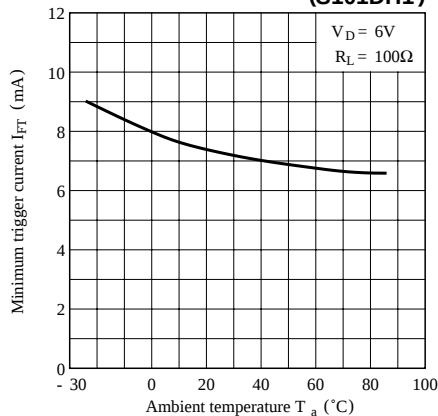


Fig. 5-a Minimum Trigger Current vs. Ambient Temperature (Typical Value) (S101DH2, S201DH2)

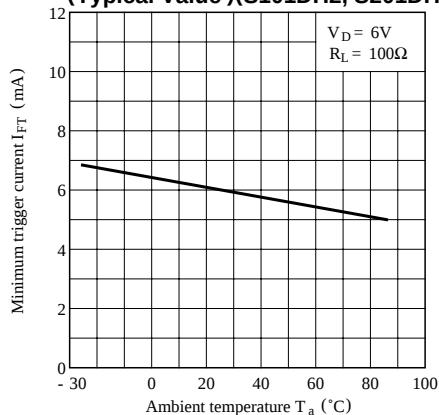


Fig. 5-b Minimum Trigger Current vs. Ambient Temperature (Typical Value) (S201DH1)

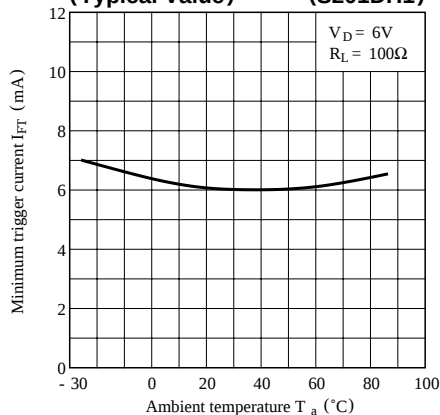


Fig. 6 ON-state Voltage vs. Ambient Temperature (Typical Value)

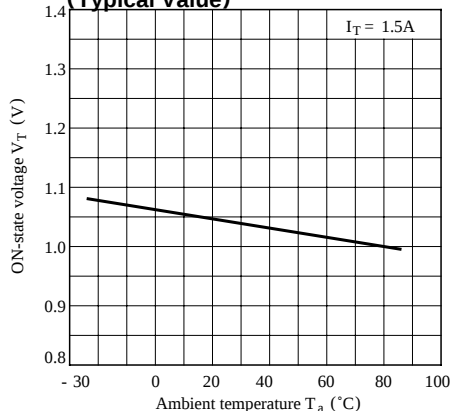


Fig. 7 Relative Holding Current vs. Ambient Temperature (Typical Value)

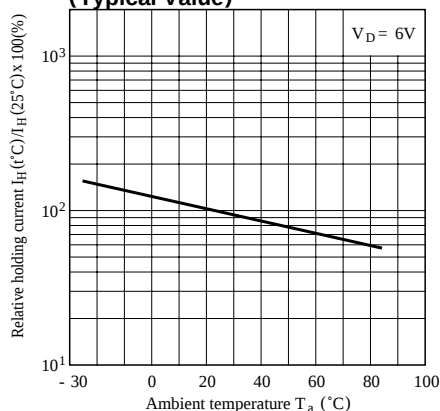


Fig. 8 ON-state Current vs. ON-State Voltage (Typical Value)

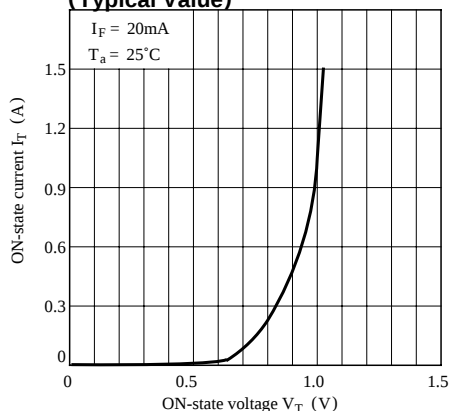


Fig. 9 Turn-on Time vs. Forward Current (Typical Value) (S101DH1)

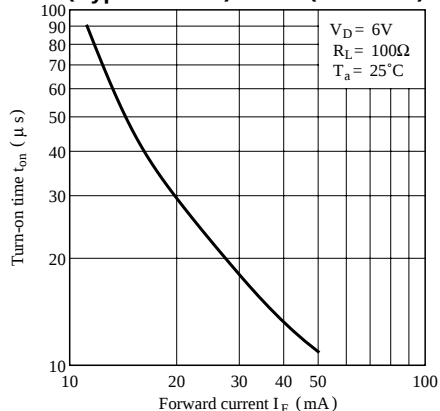


Fig.10 Turn-on Time vs. Forward Current
(Typical Value)
(S101DH2, S201DH2)

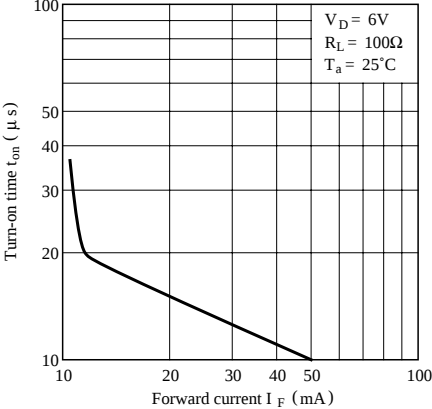
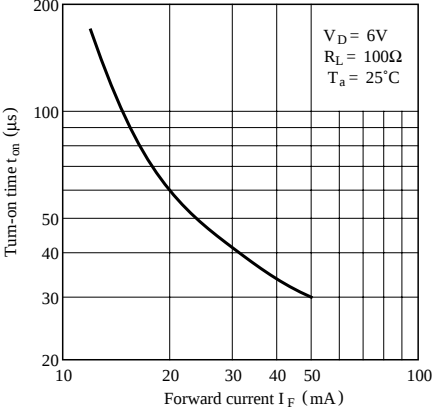


Fig.11 Turn-on Time vs. Forward Current
(Typical Value)
(S201DH1)



● Please refer to the chapter “Precautions for Use.”

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